

Date: Fri, 21 Jan 94 04:30:02 PST  
From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>  
Errors-To: Packet-Radio-Errors@UCSD.Edu  
Reply-To: Packet-Radio@UCSD.Edu  
Precedence: Bulk  
Subject: Packet-Radio Digest V94 #7  
To: packet-radio

Packet-Radio Digest Fri, 21 Jan 94 Volume 94 : Issue 7

## Today's Topics:

returned mail -- invalid userid

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>  
Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 20 Jan 94 12:57:54 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: returned mail -- invalid userid  
To: packet-radio@ucsd.edu

The following message did not contain a valid DESY userid.  
Since we were not able to identify the correct userid, the message will  
be returned to you.

Please check your address list and try again with the correct userid.  
It would be helpful to supply the full name of the addressee.

----- text of the message with invalid user id follows -----

```
> Received: from ucsd.edu by Sdsc.Edu (sds.sdsc.edu STMG) via INTERNET;
>           Wed, 19 Jan 94 13:49:57 GMT
> Received: from localhost by ucsd.edu; id EAA22412
>           sendmail 8.6.4/UCSD-2.2-sun
>           Wed, 19 Jan 1994 04:30:04 -0800 for packet-radio-list
> Errors-To: packet-radio-relay@UCSD.EDU
> Sender:   packet-radio-relay%UCSD.EDU@Sdsc.BITnet
> Precedence: List
> Received: from localhost by ucsd.edu; id EAA22390
```

> sendmail 8.6.4/UCSD-2.2-sun  
> Wed, 19 Jan 1994 04:30:03 -0800 for packet-radio-ddist  
> Message-Id: <199401191230.EAA22390@ucsd.edu>  
> Date: Wed, 19 Jan 94 04:30:01 PST  
> From: packet-radio%UCSD.EDU@Sdsc.  
> BITnet (Packet-Radio Mailing List and Newsgroup)  
> Errors-To: Packet-Radio-Errors@UCSD.EDU  
> Reply-To: Packet-Radio%UCSD.EDU@Sdsc.BITnet  
> Precedence: Bulk  
> Subject: Packet-Radio Digest V94 #5  
> To: packet-radio%UCSD.EDU@Sdsc.BITnet  
>  
>  
> Packet-Radio Digest            Wed, 19 Jan 94            Volume 94 : Issue    5  
>  
> Today's Topics:  
>        Higher Speeds with the G3RUH 9600 baud Packet Radio Modem  
>  
> Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>  
> Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>  
> Problems you can't solve otherwise to brian@ucsd.edu.  
>  
> Archives of past issues of the Packet-Radio Digest are available  
> (by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".  
>  
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> herein consists of personal comments and does not represent the official  
> policies or positions of any party. Your mileage may vary. So there.  
> -----  
>  
> Date: 18 Jan 94 19:42:35 GMT  
> From: news-mail-gateway@ucsd.edu  
> Subject: Higher Speeds with the G3RUH 9600 baud Packet Radio Modem  
> To: packet-radio@ucsd.edu  
>  
> \$RUH93235  
>  
>        Higher Speeds with the G3RUH 9600 baud Packet Radio Modem  
>        -----  
>                    by James Miller G3RUH  
>  
>                    1993 Aug 23  
>  
> The modem is capable of speeds up to 64000 baud. This limit is set by the  
> maximum rate that the DAC chips can operate. This note describes how to  
> achieve rates from 4800 to 64000 baud. The slowest speed is suitable for  
> 12.5 kHz channelised radios. The highest speed suits radios that have  
> broadcast FM bandwidth filters.

```

>
> To implement a higher speed you need to:
>
> 1. Increase your TXData rate (!)
> 2. Increase the associated TXClock
> 3. Change some analogue filter components proportional to
> the speed increase.
>
> It is not necessary to change either of the eproms. If you are going
> for a higher speed, it is likely that the radios involved are "specials"
> and you will already have wide bandwidth and flattish group delay, so the
> loopback selection 0 from the standard ROM will be OK.
>
> The table below suggests the best conditions for different speeds.
> Component references are for my own PCB card. Clones are different.
>
>          Data Rate - Baud
> Comp      4800    9600   19200   38400   64000
> -----
> R6        220k    100k    47k     22k     15k
>
> R16       100k    100k    100k    47k     15k
> R17       82k     82k     82k     39k     12k
> R18       39k     39k     39k     18k     5k6
> R19       27k     27k     27k     15k     3k9
> R21       100k    100k    100k    47k     15k
> R22       56k     56k     56k     27k     8k2
>
> C18       4n7     4n7     4n7     1n      680p
> C20       220p    100p    47p     22p     12p
>
> C27       2n2     1n      470p    470p    1n     )
> C28       2n2     1n      470p    470p    1n     )
> C29       6n8     3n3     1n5     470p    470p    ) 2% or
> C30       220p    100p    47p     47p     100p    ) better
> C31       1n      470p    220p    220p    470p    )
> C32       2n2     1n      470p    220p    150p    )
> -----
> Deviation +/- 1.5      3       6       12      20 kHz ) In FM
> IF Bandwidth     8       15      30      60      100 kHz ) service
> -----
>
> These modifications have been tested in both amateur and commercial
> service. All comments gratefully received, and added to the database.
>
>
> 73 de James G3RUH @ GB7DDX.#22.GBR.EU  1993 Aug 23 [Mon] 0917 utc
>
```

> -----  
>  
> End of Packet-Radio Digest V94 #5  
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End of Packet-Radio Digest V94 #7  
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